CLAIMS

What is claimed is:

1. A method for obtaining a spreading code set for a code division multiple access communications system, comprising:

providing a first spreading code set requiring a first signal bandwidth; and

repeating chips to generate a second spreading code set comprised of fewer spreading codes and requiring a second signal bandwidth that is less than the first signal bandwidth.

2. A method for obtaining a spreading code set for a code division multiple access communications system, comprising:

generating a $P' \times P'$ spreading code set where $P' = P / N$, where P is the spreading gain in chips/symbol and where N is an integer multiple of 2; and

replicating chips in each spreading code by N to produce a $P' \times P$ spreading code set.

3. A method as in claim 2, wherein the step of generating includes randomizing the spreading code set by performing at least one or row or column permutation.

4. A method as in claim 2, and further comprising a step of loading the $P' \times P$ spreading code set into system hardware and operating with the loaded spreading code set with a bandwidth that is less than the bandwidth that would be required to operate with the $P' \times P'$ spreading code set.

5. A method as in claim 4, and further comprising a step of reprogramming a digital FIR pulse shape filter to accommodate the change in system bandwidth.

6. A method for generating a spreading code set for use in a deployment of a synchronous, direct sequence code division multiple access communications system, comprising:

generating a $P' \times P'$ Hadamard spreading code set where $P' = P / N$, where P is the spreading gain in chips/symbol and where N is an integer multiple of 2, the $P' \times P'$ Hadamard spreading code set requiring a channel bandwidth of X Hz for operation; and

replicating chips in each spreading code by N to produce a P' x P spreading code set that requires a channel bandwidth of Y Hz for operation, where Y<X.

7. A method as in claim 6, wherein the step of generating includes randomizing the Hadamard spreading code set by performing at least one or row or column permutation.

8. A method as in claim 6, and further comprising a step of loading the P' x P spreading code set into hardware of the deployment of the synchronous, direct sequence code division multiple access communications system, and operating with the channel bandwidth of Y Hz.

9. A method as in claim 8, and further comprising a step of reprogramming a digital FIR pulse shape filter to accommodate the change in system bandwidth from X Hz to Y Hz.

10. In a synchronous, direct sequence code division multiple access communications system, a memory device that stores a spreading code set generated from a (P/N) x (P/N) Hadamard spreading code set, where P is the spreading gain in chips/symbol and N is an integer multiple of 2, the stored spreading code set being generated from the Hadamard spreading code set by repeating chips in each spreading code of the Hadamard spreading code set by a factor of N to produce a (P/N) x P spreading code set that requires a channel bandwidth of Y Hz for operation, where Y<X and X is the channel bandwidth required for operation by the Hadamard code set.

11. A system as in claim 10, wherein the memory device is located within a base station.

12. A system as in claim 10, wherein the memory device is located within a subscriber station.